

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method for managing access to data in a database subject to a plurality of label-based security policies, the method comprising the steps of: receiving, ~~within a database management system~~, a request for performing an operation set of one or more operations on data in a table of the database; determining which policies, of the plurality of label-based security policies, apply to the table based on a policy set of one or more policies associated with the table; for each operation in the operation set, determining whether to perform the operation on a row of the table based on a set of labels associated with the row, the set of labels corresponding to the policy set; adding, to the table, a first policy column that stores labels for a first policy of the policy set that has a first policy type that is selected from the group consisting of: (a) a compartmented policy type in which a label associated with a particular row must exactly match a subject's label in order for the subject to gain access to the particular row, (b) a multi-level policy type in which a label associated with the particular row must be at a same or lower level of security than a level of security associated with the subject in order for the subject to gain access to the particular row, and (c) a hierarchical policy type in which a label associated with the particular row must be at a same level of security associated with the subject or at a lower level on a same branch of a hierarchy that contains the level of security associated with the subject in order for the subject to gain access to the particular row; and adding, to the table, a second policy column that stores labels for a second policy of the

policy set that has a second policy type that is selected from the group;
wherein the first policy type differs from the second policy type; and
wherein the method is executed by a database management system comprising one or
more computer systems.

2. (Original) A method according to Claim 1, further comprising adding a policy column to the table for each policy in the policy set associated with the table
3. (Original) A method according to Claim 2, further comprising storing a label, of the set of labels associated with the row, in a corresponding policy column of the row.
4. (Original) A method according to Claim 2, said step of determining which policies apply further comprising the step of determining whether a column is a policy column.
5. (Currently Amended) A method according to Claim 1, wherein the policy set associated with the table includes two or more policies of the plurality of label-based security policies.

6-20. (canceled)

21. (Currently Amended) A non-transitory computer-readable storage medium storing one or more sequences of instructions for managing access to data in a database subject to a plurality of label-based security policies, wherein execution of the one or more

sequences of instructions by one or more processors causes the one or more processors to perform the steps of:

receiving a request for performing an operation set of one or more operations on data in a table of the database;

determining which policies, of the plurality of label-based security policies, apply to the table based on a policy set of one or more policies associated with the table; and for each operation in the operation set, determining whether to perform the operation on a row of the table based on a set of labels associated with the row, the set of labels corresponding to the policy set;

adding, to the table, a first policy column that stores labels for a first policy of the policy set that has a first policy type that is selected from the group consisting of: (a) a compartmented policy type in which a label associated with a particular row must exactly match a subject's label in order for the subject to gain access to the particular row, (b) a multi-level policy type in which a label associated with the particular row must be at a same or lower level of security than a level of security associated with the subject in order for the subject to gain access to the particular row, and (c) a hierarchical policy type in which a label associated with the particular row must be at a same level of security associated with the subject or at a lower level on a same branch of a hierarchy that contains the level of security associated with the subject in order for the subject to gain access to the particular row; and

adding, to the table, a second policy column that stores labels for a second policy of the policy set that has a second policy type that is selected from the group; and wherein the first policy type differs from the second policy type.

22. (Original) A non-transitory computer-readable storage medium according to Claim 21, wherein execution of the one or more sequences of instructions further causes the one or more processors to perform the step of adding a policy column to the table for each policy in the policy set associated with the table
23. (Original) A non-transitory computer-readable storage medium according to Claim 22, wherein execution of the one or more sequences of instructions further causes the one or more processors to perform the step of storing a label, of the set of labels associated with the row, in a corresponding policy column of the row.
24. (Original) A non-transitory computer-readable storage medium according to Claim 22, said step of determining which policies apply further comprising the step of determining whether a column is a policy column.
25. (Currently Amended) A non-transitory computer-readable storage medium according to Claim 21, wherein the policy set associated with the table includes two or more policies of the plurality of label-based security policies.

26-40. (canceled)